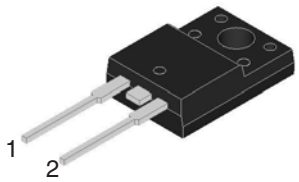
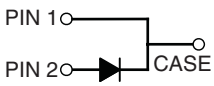
10 Amp. Schottky Barrier Rectifier

ITO-220AC





Case Positive

Voltage	Current
45 to 150 V	10 A

- Plastic material used carries Underwriters Laboratory Classifications 94V-0
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency
- High current capability, low forward voltage drop
- High surge capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- Guardring for overvoltage protection
- High temperature soldering guaranteed: 260°C/10 seconds, 6.35mm from case

Mechanical Data

- Cases: JEDEC ITO-220AC molded plastic body
- Terminals: Pure tim plated, lead free, solderable per MIL-STD-750, Method 2026
- Polarity: As marked
- Mounting position: Any
- Mounting torque: 5 in. - lbs. max
- Weight: 2.24 grams

Absolute Maximum Ratings, according to IEC publication No. 134

		MBRF 1045	MBRF 1060	MBRF 10100	MBRF 10150
V_{RRM}	Maximum Recurrent Peak Reverse Voltage (V)	45	60	100	150
V_{RMS}	Maximum RMS Voltage (V)	31	42	70	105
V_{DC}	Maximum DC Blocking Voltage (V)	45	60	100	150
$I_{F\ (AV)}$	Maximum Average Forward Rectified Current at T_C = 125 °C	10 A			
I_{FSM}	Peak Forward Surge Current, 8.3 ms Single Half sine-wave Superimposed on Rated Load (JEDEC Method)	150 A			
I_{RRM}	Peak Repetitive Reverse Surge Current (Note 1)	1.0 A	0.5 A		
T_j	Operating Junction Temperature Range	– 65 to + 150 °C			
T_{stg}	Storage Temperature Range	– 65 to + 175 °C			

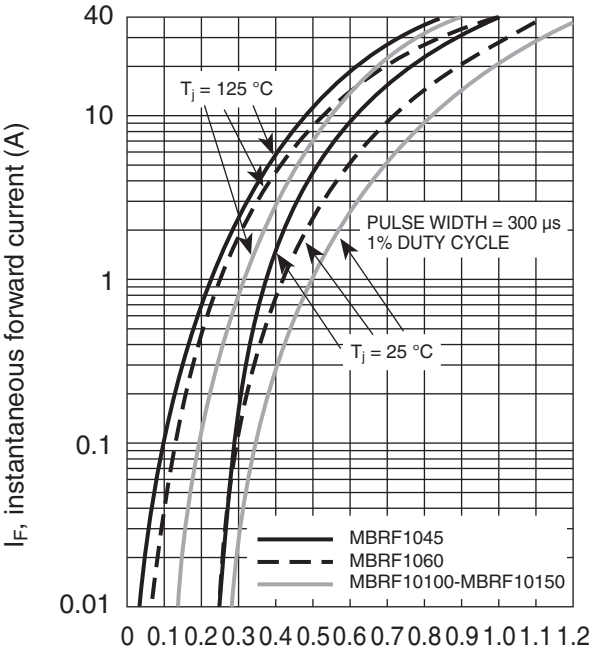
Electrical Characteristics

			MBRF 1045	MBRF 1060	MBRF 10100	MBRF 10150
V_F	Max.Instantaneous Forward Voltage (Note 2) at I_F = 10 A	Tc = 25 °C	0.70 V	0.80 V	0.85 V	1.05 V
		Tc = 125 °C	0.57 V	0.70 V	0.71 V	--
	Max.Instantaneous Forward Voltage (Note 2) at I_F = 20 A	Tc = 25 °C	0.84 V	0.95 V	--	--
		Tc = 125 °C	0.72 V	0.85 V	--	--
I_R	Max. Instantaneous Reverse Current at Rated DC Blocking Voltage (Note 2)	Tc = 25 °C	0.10 mA		0.10 mA	
		Tc = 125 °C	15.0 mA	10.0 mA	6.0 mA	
R_{thj-c}	Maximun Typical Thermal Resistance (Note 3)		3.0 °C/W			

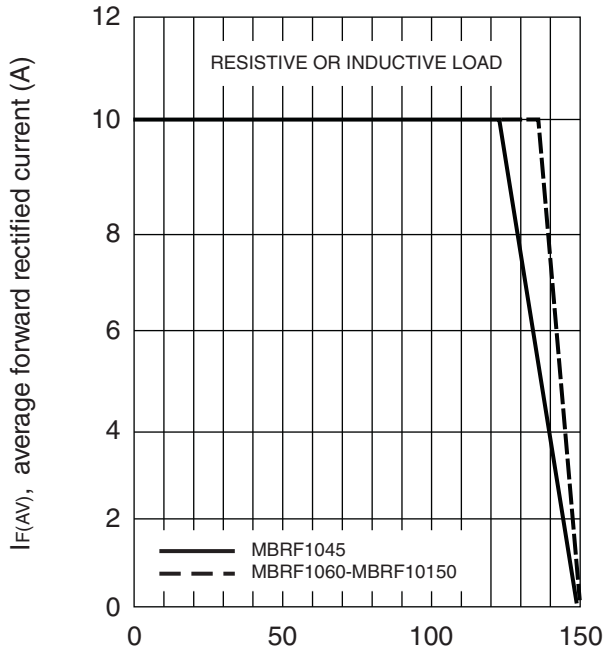
Notes: 1. 2.0µs Pulse Width, f=1.0 KHz
2. Pulse Test: 300µs Pulse Width, 1% Duty Cycle
3. Thermal Resistance from junction to Case Per Leg with Heatsink Size of 50.8 mm x 50.8 mm x 6.35 mm Al-Plate.

Rating And Characteristic Curves

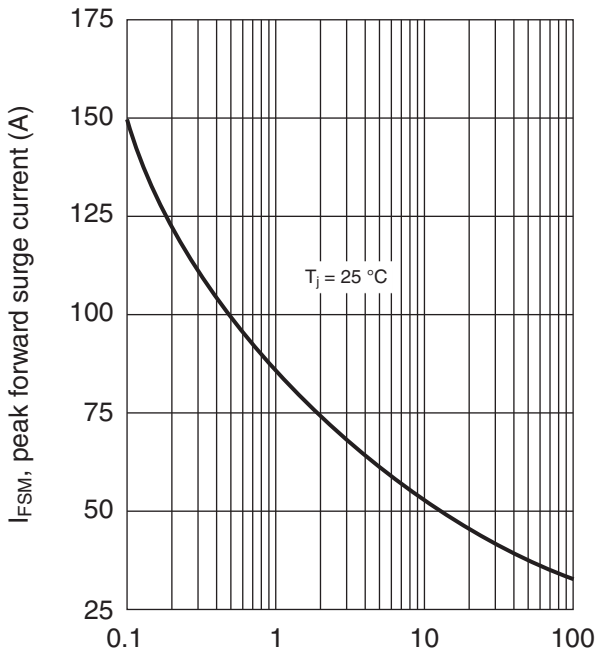
TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



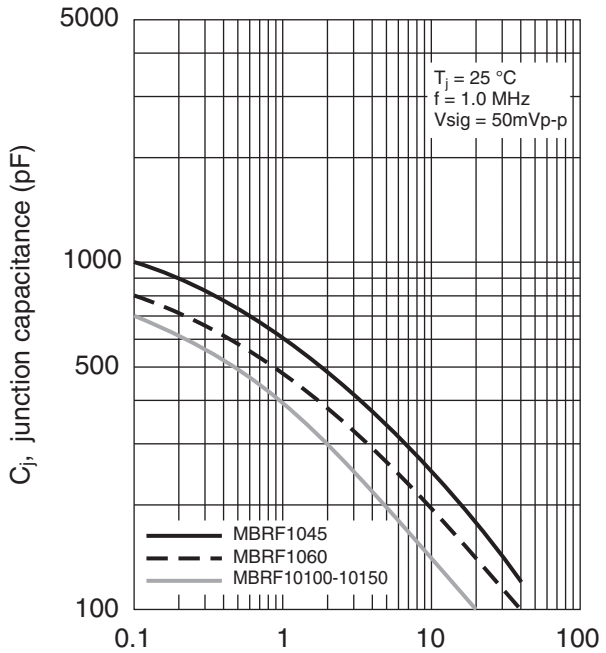
FORWARD CURRENT DERATING CURVE



MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

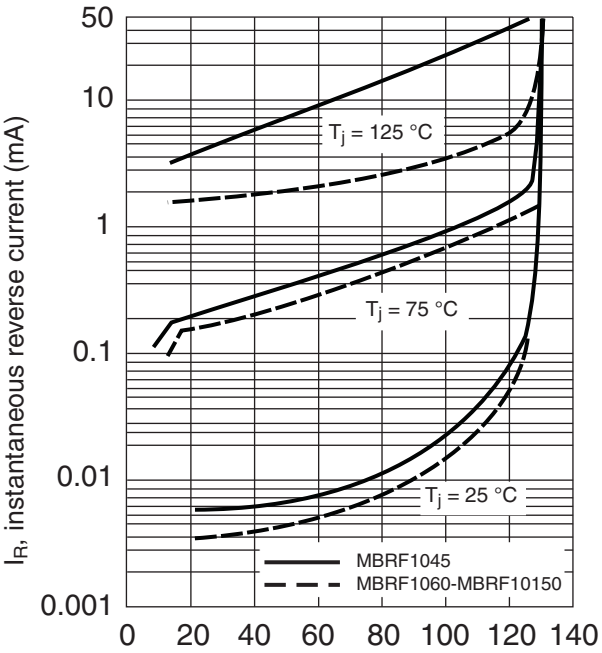


TYPICAL JUNCTION CAPACITANCE

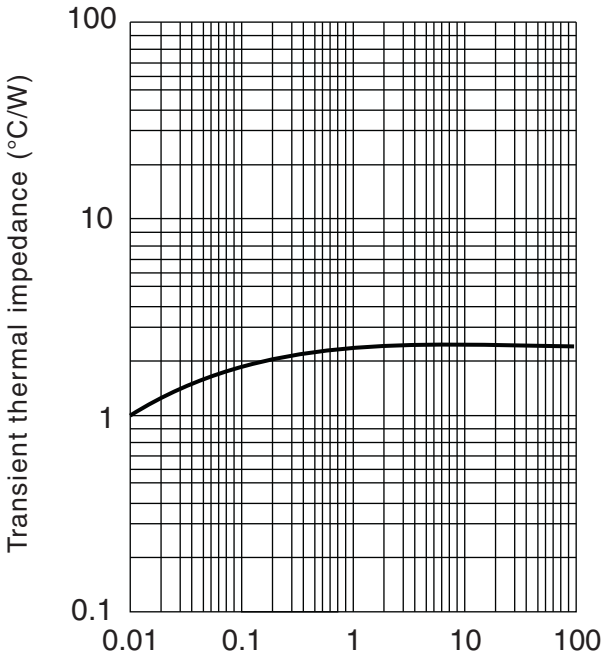


Rating And Characteristic Curves

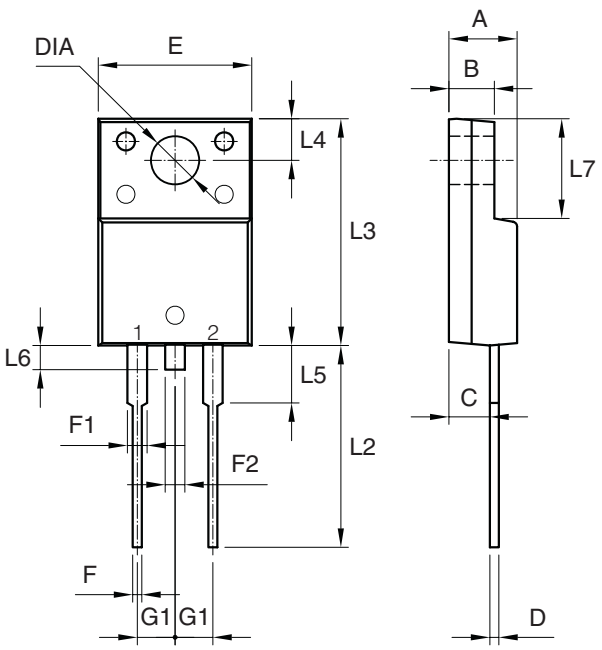
TYPICAL REVERSE CHARACTERISTIC



TYPICAL TRANSIENT THERMAL CHARACTERISTICS



PACKAGE MECHANICAL DATA ITO-220AC



REF.	DIMENSIONS		
	Milimeters		
	Min.	Nominal	Max.
A	4.40	-	4.70
B	3.00	-	3.16
C	2.50	-	2.80
D	0.50	-	0.76
E	9.90	-	10.30
F	0.50	-	0.90
F1	1.10	-	1.40
F2	-	-	1.80
G1	2.40	2.55	2.70
L2	13.20	-	13.80
L3	14.80	-	15.50
L4	2.55	-	2.85
L5	3.70	-	4.10
L6	-	-	1.60
L7	6.30	-	6.90
DIA	3.00	-	3.40